In the Claims:

Please amend the claims as follows:

1. (Currently amended) A recombinant DNA construct for expressing at least one heterologous protein in the plastids of higher plants, said construct comprising a chimeric 5' regulatory region which includes a promoter element, a leader sequence and a downstream box element operably linked to a coding region of said at least one heterologous, said chimeric 5' regulatory region enhancing translational efficiency of an mRNA molecule encoded by said DNA construct, relative to constructs lacking said chimeric regulatory region.

2. (Original) A vector comprising the DNA construct of claim 1.

3. (Cancelled) A recombinant DNA construct as claimed in claim 1, said 5' regulatory region being selected from the group consisting of PrnnLatpB+DBwt, SEQ ID NO:1, PrrnLatpB-DB, SEQ ID NO:2, PrrnLatpB+DBm, SEQ ID NO:3, PrrnLclpP+DBwt, SEQ ID NO: 4, PrrnclpP-DB, SEQ ID NO:5, PrrnLrbcL+DBwt, SEQ ID NO:6, PrrnLrbcL-DB, SEQ ID NO:7, PrrnLrbcL+DBm, SEQ ID NO:8, PrrnLpsbB+DBwt, SEQ ID NO:9, PrrnLpsbB-DB, SEQ ID NO:10, PrrnLpsbA+DBwt, SEQ ID NO: 11, PrrnLpsbA-DB, SEQ ID NO:12, PrrnLpsbA-DB(+GC), SEQ ID NO:13.

4. (Previously Presented) A ~~The~~ recombinant DNA construct ~~as claimed in claim 1~~, for expressing at least one heterologous protein in the plastids of higher plants, said construct comprising a chimeric 5' regulatory region which includes a promoter element, a leader sequence and a downstream box

element operably linked to a coding region of said at least one heterologous protein, said chimeric 5′ regulatory region enhancing translational efficiency of an mRNA molecule encoded by said DNA construct, relative to constructs lacking said chimeric regulatory region, said chimeric 5' regulatory region being PrrnLT7g10+DB/Ec (SEQ ID NO:14).

5. (Previously Presented) A vector comprising the DNA construct as claimed in claim 4.

6. (Cancelled) A DNA construct as claimed in claim 1, said downstream box element having a sequence selected from the group consisting of 5'TCCAGTCACTAGCCCTGCCTTCGGCA'3 (SEQ ID NO: 29) and 5'CCCAGTCATGAATCACAAAGTGGTAA'3 (SEQ ID NO:30).

7. (Cancelled) A DNA construct as claimed in claim 1, wherein said heterologous protein is expressed from a *bar* gene encoded by *S. hydroscopicus* said bar gene inserted into a plasmid selected from the group consisting of pKO12, and pJEK3, said pJEK3 having the sequence of SEQ ID NO: 18.

8. (Previously Presented) The DNA construct as claimed in claim 1, wherein said heterologous protein is expressed from a synthetic bar encoding nucleic acid, wherein said synthetic bar encoding nucleic acid is selected from the group consisting of SEQ ID NO: 19 and SEQ ID NO:20.

9. (Previously Presented) The DNA construct as claimed in claim 1, said at least one heterologous protein comprising a fusion protein.

10. (Currently amended) The DNA construct as claimed in claim

9, said fusion protein encoded by a first and second coding region, said coding regions being operably linked to said chimeric 5' regulatory region such that production of said fusion protein is regulated by said chimeric 5' regulatory region, said first coding region encoding a selectable marker and said second coding region encoding a fluorescent molecule to facilitate visualization of transformed plant cells.

11. (Original) A vector comprising the DNA construct of claim 10.

12. (Currently amended) The DNA construct as claimed in claim 9, said fusion protein being encoded by a polynucleotide consisting of an aadA coding region operably linked to a green fluorescent protein coding region.

13. (Previously Presented) The DNA construct as claimed in claim 12, said aadA coding region being operably linked to said green fluorescent protein coding region via a nucleic acid molecule encoding a peptide linker comprising an amino acid sequence selected from the group consisting of ELVEGKLELVEGLKVA (SEQ ID NO:104) and ELAVEGKLEVA (SEQ ID NO:105).

14. (Currently amended) The DNA construct as claimed in claim 10, said construct comprising a sequence selected from the group of SEQ ID NOS: 21, 22, 23, 24, and 25~~, and 27~~.

15. (Previously Presented) A plasmid for transforming the plastids of higher plants, said plasmid being selected from the group consisting of pHK38(A), pMSK45, pMSK48, pMSK49, and pMSK35.

16. (Previously Presented) A transgenic plant containing the plasmid as claimed in claim 15.

17. (Previously Presented) The transgenic plant as claimed in claim 15, said plant being selected from the group consisting of monocots and dicots.

18. (Cancelled) A method for producing transplastomic monocots, comprising:

a) obtaining embryogenic cells;

b) exposing said cells to a heterologous DNA molecule under conditions whereby said DNA enters the plastids of said cells, said heterologous DNA molecule encoding at least one exogenous protein, said at least one exogenous protein encoding a selectable marker;

c) applying a selection agent to said cells to facilitate sorting of untransformed plastids from transformed plastids, said cells containing transformed plastids surviving and dividing in the presence of said selection agent;

d) transferring said surviving cells to selective media to promote shoot regeneration and growth; and

e) rooting said shoots, thereby producing transplastomic monocot plants.

19. (Cancelled) method as claimed in claim 18, wherein said heterologous DNA molecule is introduced into said plant cell via a process selected from the group consisting of biolistic bombardment, Agrobacterium- mediated transformation, microinjection and electroporation.

20. (Cancelled) A method as claimed in claim 18, wherein

protoplasts are obtained from said embryogenic cells and said heterologous DNA molecule is delivered to said protoplasts by exposure to polyethylene glycol.

21. (Cancelled) A method as claimed in claim 18, wherein said selection agent is selected from the group consisting of streptomycin, and paromomycin

22. (Cancelled) A monocot transformed via the method of claim 18.

23. (Cancelled) A transformed monocot plant as claimed in claim 22, said monocot plant being selected from the group consisting of maize, millet, sorghum, sugar cane, rice, wheat, barley, oat, rye, and turf grass.

24. (Cancelled) A method for producing transplastomic rice plants, said method comprising:

a) obtaining embryogenic calli;

b) inducing proliferation of calli on modified CIM medium;

c) obtaining embryogenic cell suspensions of said proliferating calli in liquid AA medium;

d) bombarding said embryogenic cells with microprojectiles coated with plasmid DNA;

e) tranferring said bombarded cells to selective liquid AA medium;

f) transferring said cells surviving in AA medium to selective RRM regeneration medium for a time period sufficient for green shoots to appear; and

g) rooting said shoots in a selective MS salt medium.

25. (Cancelled) A method as claimed in claim 24, said plasmid DNA being selected from the group of plasmids consisting of pMSK35 and pMSK53, pMSK54 and pMSK49.

26. (Cancelled) A transplastomic rice plant produced by the method of claim 24.

27. (Cancelled) A method for containing transgenes in transformed plants, comprising:

a) determining the codon usage in said plant to be transformed and in microbes found in association with said plant; and

b) genetically engineering said transgene sequence via the introduction of rare codons to abrogate expression of said transgene in said plant associated microbe.

28. (Cancelled) A method as claimed in claim 27, wherein said transgene is a bar gene and said rare codons are arginine encoding codons selected from the group consisting of AGA and AGG.